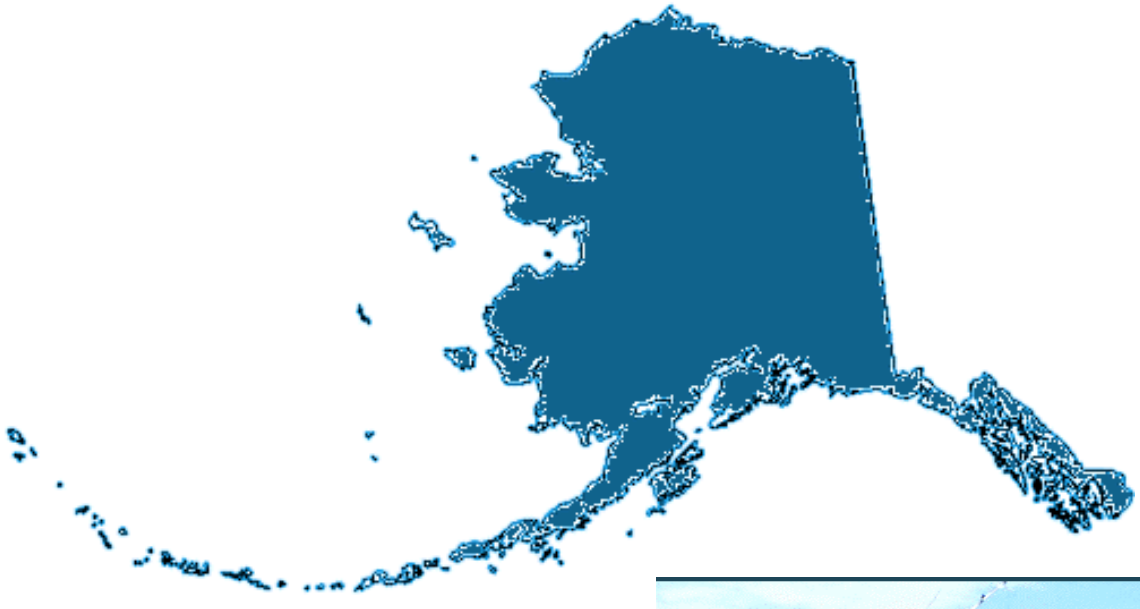
Seventeenth
Coast Guard District

Alaska Small Passenger Vessel Task Force
Report on Improving Safety of Small Passenger Vessel Operations in Alaska
12 April 2000



Acknowledgements

I commend the interest and active participation in the risk assessment and risk management process undertaken by the Alaska Small Passenger Vessel Task Force members and the marine community to improve maritime safety and environmental protection in Alaska. Their insight, expertise and common sense were instrumental in the development of initiatives that will improve the safety of expanding passenger vessel operations in the harsh Alaska marine operating environment.

My thanks go to the following Task Force members; Bob Mattson and Lester Leatherberry of the Alaska Department of Conservation, Doug Baird of the National Oceanic and Atmospheric Association, Rick Perkins of the National Park Service, and Peter Christiansen of the Alaska Department of Economic Development. Also, to Coast Guard members, Captain Ed Page, Lcdr John Bingaman, Lcdr Spencer Wood and Ltjg Ryan Murphy of the 17th District staff, Lt Gerry Achenbach from MSO Juneau, Lt Mark McManus from MSO Anchorage and LT Virginia Kamerer from MSO Valdez.

The Task Force consulted with several representatives from the marine industry who provided valuable insight into the unique Alaska operating environment and played a key role in helping to identify opportunities for improvement. The Task Force appreciated the participation in meetings and in-depth dialogue provided by Bryce Brockway of Alaska Sightseeing Cruise West, Christian Volke and Michael Jones of Special Expeditions Marine, Chris Satterwhite of Inside Passage Charters, Hans Antonsen of Southeast Alaska Pilots' Association, Kevin Hill of Glacier Bay Tours and Cruises, Mikko Polley of Auk Nu Marine Service, Pete Lauridsen of the Passenger Vessel Association, Roger Kibby of Alaska Tantallon Tours, Stan Stephans of Prince William Sound Tours and Cruises, and Steven Weber of Adventure Boats.

I am confident that the initiatives presented in this report will have a positive impact on safety in Alaska.

Thomas J. Barrett
Rear Admiral U.S. Coast Guard
Commander
Seventeenth Coast Guard District

Alaska Small Passenger Vessel Task Force Final Report

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Alaska Small Passenger Vessel Task Force

Final Report
March 10, 2000

Executive Summary

In the wake of a series of small passenger vessel groundings in Southeast Alaska during the summer of 1999, Admiral Thomas J. Barrett, Commander of the 17th Coast Guard District, chartered the Alaska Small Passenger Vessel Task Force to identify safety initiatives that would reduce the potential for loss of lives and environmental damage presented by expanding passenger vessel operations. This group was tasked with examining the incidents and identifying measures that should be taken to minimize the potential for future accidents as well as improve the response to accidents that occur.

The Task Force was comprised of representatives from state and federal agencies including the Coast Guard, Alaska Department of Environmental Conservation, Alaska Department of Community and Economic Development, U.S. Park Service and the National Oceanic and Atmospheric Administration (NOAA). The task force met and consulted with representatives of the commercial small passenger vessels and the Passenger Vessel Association to explore actions that could be taken to improve the safety of small passenger vessel operations in Alaska. For the purposes of this Task Force, "Alaska small passenger vessels" are defined as vessels in the 50 to 200-foot range which carry up to 200 passengers.

The Chairman of the Task Force, Captain Edward E. Page, Chief of Marine Safety for the 17th Coast Guard District, was directed to focus on the prevention of marine casualties and to identify ways to ensure proper response mechanisms are provided to minimize the consequences of maritime accidents that occur. The Task Force presented preliminary findings and recommendations for implementation during the 1999 operating season on 24 August 1999. Additional meetings were held with the Task Force and the maritime community to further explore processes and initiatives that could help improve safety and to develop an "Action Plan".

In response to the charter, and after several months of meetings, the Task Force determined safety improvements should be made in the following areas that should lead to safer passenger vessel operations in Alaska:

Waterway Surveys and Charts of Alaska Waters: Provide accurate surveys of remote Alaska waterways and larger scale charts for the restricted and remote waterways where smaller passenger vessels often operate.

Standards of Care: Develop and communicate "Standards of Care" and "Good Marine Practice" for mariners operating in the challenging Alaska marine environment.

Situational Awareness: Increase mariners' knowledge of hazards and attentiveness while operating their vessels in confined, unmarked waters subject to severe weather conditions through providing safety notices and "Lessons Learned" developed from past casualties with the objective of increasing awareness of hazards and preventing similar incidents.

Mariner Qualifications and Training: Improve mariner's skills and knowledge which in turn should reduce the risk of accidents and increase their ability to respond to casualties when they happen.

Communications: Provide improved communications capability to ensure vessels suffering casualties can alert others of their distress and obtain Coast Guard and other vessels' assistance.

Lifesaving: Ensure adequate lifesaving equipment is provided on vessels to ensure protection from Alaska's cold waters and resulting hypothermia.

These action items are addressed in greater detail in this report and are available on the web at http://www.akrrt.org/spvtaskforce

Alaska Small Passenger Vessel Task Force
Final Report

1.0 Passenger Vessel Activity in Alaska

Over the last several years there has been substantial growth in the passenger vessel trade in Alaska. Annually, several million passengers travel on Alaska waters on cruise ships, Alaska Marine Highway System ferries, large capacity eco-tour day boats, overnight vessels, and fishing charters.

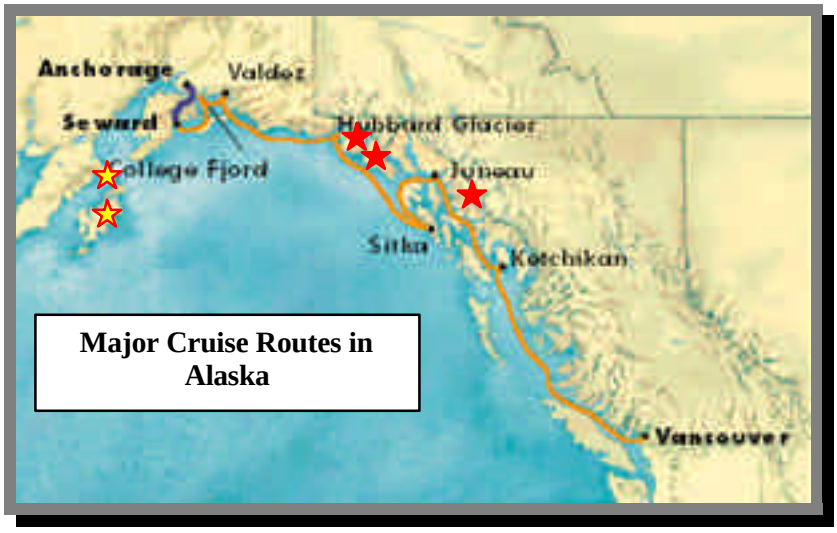
After three small passenger vessels grounded in Southeast Alaska in the summer of 1999, Admiral Thomas J. Barrett, Commander of the 17th Coast Guard District, chartered the Alaska Small Passenger Vessel Task Force to identify measures that when implemented would minimize the potential for future accidents and improve the response to accidents that occur. The Task Force was directed to focus on small passenger vessels that typically sail on Alaska's more confined, unmarked and hazardous waters than the larger cruise ships and ferries and in areas where communications with the Coast Guard and other vessels are limited or nonexistent. Additionally, Alaska's harsh maritime environment and severe weather changes present a greater hazard to smaller vessels increasing the risk of accidents that can lead to loss of life and environmental impact.

The Task Force explored the safety issues involving the approximately 200 small passenger vessels in the 50-200 foot range that carry up to 200 passengers that operate on Alaska's waters. Many of these vessels have small crews and limited lifesaving equipment and sail in very cold waters. In the event of a serious accident leading to abandoning of the vessel, persons exposed to Alaska's frigid waters would expire from hypothermia in 30 minutes to 1 hour. The lifefloats presently carried by most of these passenger vessels are of very limited effectiveness in saving lives should the passengers and crew need to abandon ship as they solely provide buoyancy for survivors in the water and do not provide protection from hypothermia caused by exposure to cold water. While the safety record for these passenger vessels has been very good, the several serious accidents during the summer of 1999 indicates there is a need to improve the safety of these operations both through preventing casualties and providing adequate response equipment. The consequences of loss of life and or damage to environmentally fragile areas developing from maritime accidents are unacceptable.

2.0 Overview of Accidents:

The accidents in the summer of 1999 leading to the formation of the Task Force caused substantial damage and required the evacuation of all passengers onto vessels that came to their aid. Fortunately, the weather was favorable and did not compound the evacuation of passengers and crew or the salvage efforts. Additionally, the safety equipment carried by these vessels and the response by the crews prevented injuries and loss of life. While one incident led to the release of oil into the water, spill recovery efforts were successful in preventing serious environmental impact.

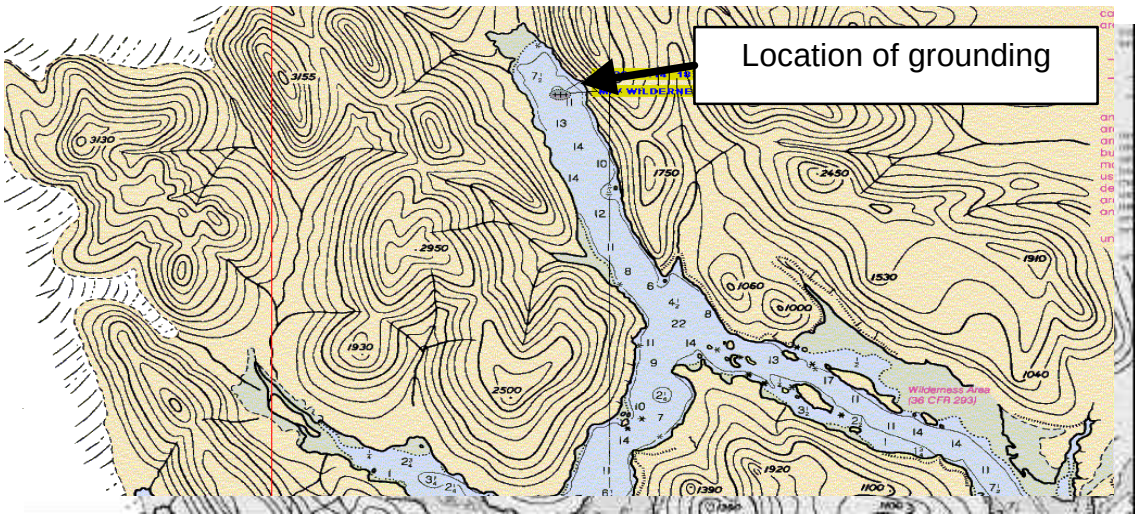
There were also two serious marine casualties involving uninspected passenger vessels (Six Packs) in 1999 that led to the abandonment of the vessels and the potential for loss of life. While these smaller, uninspected passenger vessels were not the focus of the Task Force, the "Lessons Learned" from these accidents have application to the issues addressed in this report. In one case, the sportfishing vessel IRENE's sank in Kennedy Entrance with 7 persons on board. Multiple loss of life was averted due to back-up communications and the carriage of an inflatable boat the passengers and crew embarked until a Coast Guard helicopter rescued them an hour after the vessel sank. Near Kodiak, the sinking of the vessel NORDIC DANCER resulted in the crew and passengers abandoning the vessel into cold waters until another vessel located them in fog and rescued them 15 minutes later. These cases reinforce the importance of emergency communications and lifesaving equipment, safety issues the Task Force identified where improvements should be made.



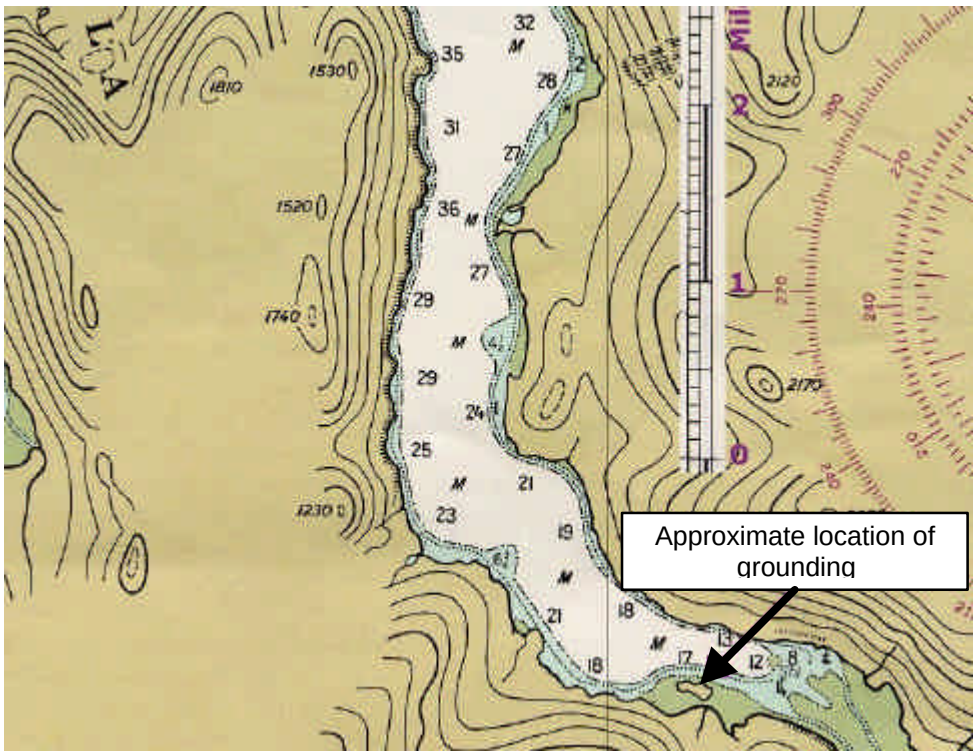
★ Approximate location of 1999 inspected vessel accidents
☆ Approximate location of uninspected vessel sinkings

The following pages provide an overview of the three accidents that led to the establishment of the Task Force.

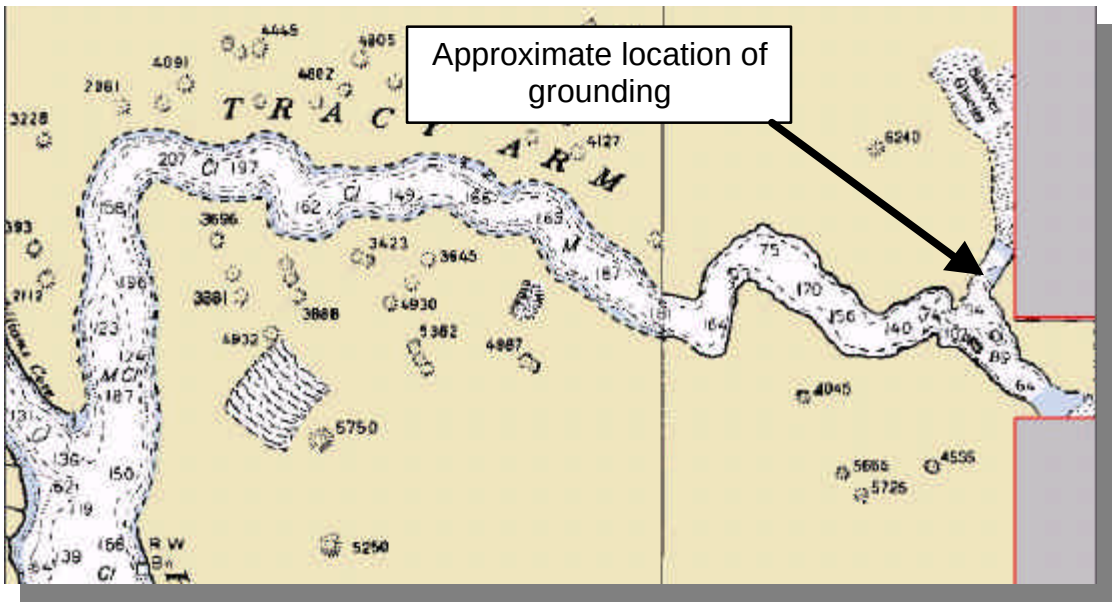
2.1 P/V WILDERNESS ADVENTURER, Dundas Bay, Southeast Alaska. On 12 June 1999, this 156' vessel, grounded on a charted rock in Dundas Bay. 56 passengers and 24 crew were evacuated from the vessel to nearby fishing vessels and a passenger vessel. Approximately 80 gallons of lube oil was released into the water from a crack in the hull by way of the vessel's bow thruster. The vessel grounded at high tide in an area where the tidal range is approximately twenty feet. At low tide the vessel rested precariously on a rock with the bow high and its stern in the water, at a forty-degree list. The response included Coast Guard representatives from MSO Juneau and the Pacific Strike Team, National Park Service, State of Alaska Department of Environmental Conservation, and South East Alaska Pollution Response Organization's (SEAPRO) personnel and seven of their vessels. The vessel was safely re-floated a few days later on a favorable high tide and towed to a repair facility.



2.2 P/V WILDERNESS EXPLORER in Idaho Inlet, Southeast Alaska. On 19 July 1999, this 110' vessel made a routine entry into the inlet to anchor for the evening. Once in the inlet, the operator of the WILDERNESS EXPLORER observed another vessel in the vessel's normal anchorage area and proceeded to locate a new anchorage within the inlet. The vessel grounded in soft mud on a charted shoal area with 58 passengers on board. The crew and passengers remained on the vessel until it floated on the next high tide without incident.



2.3 P/V SPIRIT OF 98 in Tracy Arm, Southeast Alaska. On 27 July 1999, this 150' vessel was following another small passenger vessel into the North Sawyer Glacier Arm in the vicinity of a charted shoal area, when the hull scraped along the bottom and sustained damage to the keel cooler and its attachment to the hull. The damage resulted in uncontrolled flooding requiring the evacuation of 126 passengers onto an assisting vessel. The SPIRIT OF 98 then proceeded four miles down the fjord to intentionally ground on the nearest safe shoal area. During the transit, both engines failed due to thirteen feet of water in the engine room, one just prior to the vessel reaching the grounding site. There was no environmental damage caused by this accident. The Coast Guard air lifted de-watering pumps and dispatched three vessels to assist in dewatering the vessel. Divers made temporary repairs and the vessel was refloated and towed to a repair facility.



3.0 Alaska Small Passenger Vessel Task Force Process

The Task Force was comprised of representatives from state and federal agencies including the Coast Guard, Alaska Department of Environmental Conservation, Alaska Department of Community Economic Development, U.S. Park Service and the National Oceanic and Atmospheric Administration (NOAA). The Task Force met and consulted with owners and operators of commercial small passenger vessels operating in Alaska and the Passenger Vessel Association to identify measures that could be taken to improve small passenger vessel safety in Alaska. In addressing the safety issues, the Task Force applied risk management tools and the Coast Guard's "Prevention Through People (PTP)" program that focuses on the human element in preventing marine casualties. To this end the Task Force applied the following PTP program principles;

Shared Commitment: The Task Force consulted extensively with the small passenger vessel industry who shared the same commitment to improve maritime safety.

Risk Management: The Task Force applied risk management tools to assess the risk of passenger vessel accidents in Alaska and to identify ways to most effectively manage and reduce the risk to acceptable levels.

Honor the Mariner: The Task Force met with and sought input from mariners who operate vessels on Alaska waters in identifying safety practices.

Seek Non-Regulatory Solutions: The Task Force concentrated on actions that would improve safety without having to establish new regulations that typically take longer time to develop and implement.

3.1 Task Force Meetings

Three meetings were held in Juneau over a three month period. Prior to the first meeting scheduled for 5 August 1999, the Coast Guard members of the Task Force, representatives from Marine Safety Office Anchorage, Valdez and Juneau and the 17th District office in Juneau, got underway on small passenger vessels around the State to assess current operating procedures. These rides provided an opportunity to identify best practices and operating procedures. On 5 and 6 August 1999 a risk specialist from Coast Guard Headquarters guided the group in applying risk assessment processes outlined in the Coast Guard/Passenger Vessel Association Risk Assessment Guide. Employment of this risk-based approach enabled the Task Force to focus in on six key areas: Waterway Surveys, Lessons Learned, Standards

of Care, Situational Awareness, Charts, and Communications. During the second day of the meeting representatives from the marine industry were called in to provide their input and review the risk assessment process undertaken to the Task Force's preliminary findings.

A follow-on meeting of the Task Force was held in Juneau on 23 and 24 September 1999 during which representatives from the marine industry again participated in the safety discussions. This meeting led to the identification of two additional areas where improvements in safety could be realized; Mariner Qualifications and Lifesaving Equipment. The remainder of the sessions consisted of breakout groups that utilized a risk management format to further explore the salient safety issues. The end result was the Task Force decided to address the following categories; Waterway Surveys and Charts, Situational Awareness, Standards of Care, Mariner Qualifications, Communications, and Lifesaving Equipment.

Coast Guard Task Force members subsequently met with the industry in the fall and winter of 1999 to inform them of the Task Force discussions, ground truth ideas and seek additional input. These meetings took place in Juneau, Homer, Whittier, Seward, Valdez and at the Passenger Vessel Association's Western Regional Meeting held on Whidbey Island, Washington in September 1999.

4.0 Alaska Small Passenger Vessel Task Force Recommendations

While the primary cause of the three groundings during the summer of 1999 was personnel error, the Task Force explored a suite of issues that could improve safety for small passenger vessels operating in Alaska. When implemented, the Task Force's recommendations should help prevent accidents and improve response when casualties occur.

The Task Force's recommendations add to the existing "safety net" provided by Coast Guard licensing of mariners and periodic inspection of vessels as well as the oversight provided by vessels' management.

The subjects explored by the Task Force are presented in two main categories, Prevention and Response.

Alaska Small Passenger Vessel Safety Net

Task Force Recommendations for improvement of a vessel's existing "Prevention" and "Response" Safety Net.

Prevention

- Waterway Surveys and Charts
- Situational Awareness
- Standards of Care
- Mariner Qualifications

Response

- Improved Communications
- Increased Lifesaving Equipment

4.1 Prevention

4.1.1 Waterway Surveys and Charts: Updated waterway surveys and small scale charts are needed for all waterways in Alaska transited by small passenger vessels to minimize the potential for navigation errors leading to groundings.

Discussion: Mariners require accurate navigational information to reduce the risk of grounding or striking unmarked objects. Large scale charts of remote regions of Alaska were sufficient in the past for limited vessel operations, however, are not adequate for the increased traffic by small passenger vessels that are operating closer to shore in confined waters. Smaller scale charts developed from recent surveys are needed. A majority of Alaska's remote waterways have not been surveyed for over 50 years, during which time there have been changes in the water depths and obstructions due to earthquakes, glacial migration, and other environmental factors.

After the grounding of the SPIRIT OF '98 a Coast Guard vessel with a NOAA representative on board conducted a limited survey of the entrance shoal area of North Tracy Arm to determine if there were any uncharted hazards. The shoaling in the area was consistent with that depicted on the NOAA charts and no uncharted hazards were found, however, it was evident the available charts for this area should be updated and presented in a smaller scale to aid safe navigation.

Proposed Action:

a. NOAA should conduct a survey of confined and shallow waters of Tracy Arm and provide more detailed, smaller scale charts.

b. NOAA should make "smooth sheets" of Tracy Arm and other areas in Alaska available to mariners. These smooth sheets are the detailed products developed by NOAA survey vessels from which charts are made. Information on obtaining these "smooth sheets" is posted on the Small Passenger Vessel Task Force web page.

c. A prioritized, risk based list of remote areas where small passenger vessels operate and require updated bottom surveys should be developed by the Coast Guard from waterway users' input.

4.1.1 Waterway Surveys and Charts:

Proposed Action: (cont'd)

d. As many areas transited by small passenger vessels have only large scale charts available it is recommended operators develop their own chartlets and other navigation job aids with tracklines, danger ranges and bearings and hazards clearly marked. The practice of preparing annotated navigation charts has been applied by pilots and some small passenger vessel operators to help their crews safely navigate confined waters.

4.1.2 Situational Awareness: Improving mariners' "Situational Awareness" of the waters and environmental factors he or she is operating in should reduce the potential for marine accidents.

Discussion: In operating vessels in Alaska's waters "Situational Awareness" includes but is not limited to mariners' knowledge of weather, water depth, tides and currents, communications capability, other vessel traffic, calving glaciers, presence of icebergs, the vessel's position and the operating restrictions and capabilities of the vessel. Awareness of these factors allows a mariner to make informed decisions minimizing the risk of accidents and ensuring an effective response in the event of a casualty.

Mariners should also be familiar with the aids to navigation that mark unsafe areas and information on hazards that is provided in Coast Guard Notice to Mariners as well as navigational information in the Coast Pilot and other publications to elevate their Situational Awareness.

To help improve the crews' Situational Awareness one operator takes all his captains underway on the route the vessels operate to discuss hazards and safety issues, before the season commences.

Valuable safety information and increased awareness of hazards can also be obtained from information developed from marine accidents as well as from the responses to these incidents. A Coast Guard "Lessons Learned" system that identifies the salient facts and circumstances developed from casualties and distributes this information to other mariners can help prevent similar accidents from developing.

Lastly, ensuring vessel crews are well rested and alert can be instrumental in improving Situational Awareness.

Proposed Actions:

a. Prior to the operating season, informational seminars should be conducted by the Coast Guard with marine industry participation and provide safety and navigational information to mariners with the objective of increasing their Situational Awareness.

4.1.2 **Situational Awareness**:

Proposed Actions: (cont'd)

b. Safety information should be provided by the Coast Guard through the development and distribution of "Waterways Users' Guides" and "Lessons Learned" from marine casualties.

c. The marine industry should explore conducting pre-season voyages for their operators. Due to the presence of active glaciers and slide zones in a highly dynamic environment, some waters can experience dramatic changes from one season to the next. A local Juneau vessel operator proposed the small passenger vessel industry bring their crews together and embark a vessel and sail through the operating areas at the beginning of the season. This would assist local operators in surveying areas of operations to determine if changes occurred during the previous winter and share local knowledge. This and similar industry led initiatives should be expanded Alaska-wide.

4.1.3 Standards of Care: The promulgation, distribution and adherence to "Standards of Care" will help establish good marine practice for vessels operating in Alaska waters reducing the potential for accidents and improving response.

Discussion: "Standards of Care" are good marine practices not specifically required by regulation a prudent operator follows to help ensure safe operations. Standards of Care include the application of Bridge Resource Management to effectively employ several crewmembers to ensure the safe navigation of a vessel when operating in confined waters or in reduced visibility. Additionally, reducing speed and posting lookouts in ice conditions, pre-voyage safety inspection of the vessel and similar safety practices are Standards of Care that should be adopted by all passenger vessel operators.

Proposed Actions:

a. Each Captain of the Port in Alaska in consultation with the marine industry should develop Standards of Care for operating in the Captain of the Port's area of responsibility. These Standards of Care should be communicated to the marine industry through various means including posting on the Alaska Small Passenger Vessel Task Force web site.

b. The application of Bridge Resource Management practices and the restriction of passengers from the pilot house while operating in confined waters and or in restricted visibility should be adopted as a Standard of Care by vessel operators.

4.1.4 Mariner Qualifications: Upgrading mariners' navigation and emergency response qualifications should be undertaken to reduce the potential for human error leading to maritime accidents and to ensure crews are trained to take appropriate actions in the event of a casualty.

Discussion: The three vessel groundings in Southeast Alaska in 1999 were all attributed to human error. The Coast Guard's licensing system provides the first level of qualification for mariners that should be built on to ensure mariners are trained and familiar with the vessel's operating characteristics including the operation of the vessel's unique navigation and safety equipment.

Mariners also need to be familiar with the operating area. The majority of the waterways in Southeast Alaska are designated as pilotage waters, with 28 different pilotage areas. Mariners operating "coastwise seagoing" inspected passenger vessels in these areas are required by Coast Guard regulations to be at least twenty-one years of age and possess a pilotage endorsement for Southeast Alaska or have documented four round trips over the route on which the vessel is engaged.

Proposed Actions:

a. The small passenger vessel industry should ensure their crews are familiar with the vessels they sail on as well as the waters of Alaska upon which they operate. Expanded training should be provided to mariners on electronic navigation (radar and GPS) and emergency response. The "best practices" followed by several companies in training their crews should be benchmarked and adopted by other operators to raise the competence of mariners operating the small passenger vessel fleet.

b. Operators of seagoing coastwise inspected passenger vessels should ensure their deck officers meet the pilotage requirements including the four round trip requirements that ensure familiarity with the waters upon which they are operating.

c. The Coast Guard should verify vessels are complying with the applicable pilotage requirements.

4.2 Response

4.2.1 Communications: There needs to be reliable and effective communications capability for small passenger vessels to contact the Coast Guard and other vessels in the event of distress so as to obtain assistance.

Discussion: There are many communications "black holes" in Alaska due to the steep mountains, narrow channels and fjords blocking VHF and HF communications. In some areas EPIRBS do not provide accurate positions as the signal is reflected off adjacent cliffs before being received by a satellite leading to positions being reported hundreds of miles from the actual location. VHF communications coverage should be expanded. Additionally, mariners should be advised to carry back up communications and alternate communications technology, including HF, cellular telephone, and satellite telephones.

Proposed Actions:

a. To compensate for communications "black holes" owners and operators of small passenger vessels should leverage new technologies to ensure reliable communications in remote areas of Alaska. Operators should also be encouraged to carry self contained portable back-up VHF radios and satellite phones that often have been the only available means of communications during an emergency response. Additionally, the carriage of GPS EPIRBs that transmit the vessel's position along with identifying information, is recommended to speed locating a vessel in distress.

b. The Coast Guard should provide better VHF communications in the Tracy Arm area and seek ways to eliminate other "black holes" in Alaska where there are passenger vessel operations.

c. Information on the coverage of the Coast Guard's VHF National Distress System coverage in Alaska should be provided to mariners through the Alaska Small Passenger Vessel Task Force web site so operators know where the "black holes" are.

4.2.2 Lifesaving Equipment: Small passenger vessels operating in Alaska's cold water environment should be equipped with survival craft with sufficient capacity for the passengers and crew.

Discussion: For many small passenger vessels operating in Alaska waters the existing lifesaving equipment requirements are Type I personal floatation devices (PFDs) for each person on board and lifefloats with capacity ranging from fifty to 100 per cent of the crew and passengers, depending on the vessel's route and construction. For clarification, lifefloats are rectangular floatation collars with a mesh net in the middle designed to provide persons in the water something to hold onto and stay afloat. In Alaska, loss of life from vessel sinkings is primarily due to hypothermia. Neither PFDs nor lifefloats provide escape from the water and protection from hypothermia which, in Alaska's cold waters, can lead to death in as little as30 minutes. Coast Guard inspected overnight boats, vessels with Ocean routes, and SOLAS vessels (vessels engaged in international voyages subject to the International Safety of Life At Sea convention, i.e. vessels that sail from Seattle to Alaska through Canadian waters) are required to have liferafts or inflatable buoyant apparatus (IBAs) to provide escape from the water and protection from hypothermia.

46 U.S. Code of Federal Regulations Part 117.25 provides the Coast Guard Officer in Charge of Marine Inspection (OCMI) the authority to require a vessel to carry specialized or additional lifesaving equipment if:

(a) The OCMI determines the conditions of the voyage render the requirements of this part inadequate; or
(b) The vessel is operated in Arctic, Antarctic, or other severe conditions not covered under this part.

Proposed Action:

a. The Coast Guard should evaluate the operating route and conditions of all inspected passenger vessels operating in Alaska to determine the need for carrying survival craft, inflatable liferafts or inflatable buoyant apparatus with sufficient capacity for the passengers and crew. Due to Alaska's cold waters, lifefloats should not be permitted to meet the primary lifesaving requirements.

5.0 Action Plan:

To carry out the safety proposals presented in this report, the following "Action Plan" has been developed.

5.1 Charts:

a. Detailed Charts: NOAA responded to the Task Force's request for more detailed charts of Tracy Arm by deploying the NOAA Ship RAINIER to eastern Tracy Arm in the fall of 1999 to conduct a full bottom coverage survey in the vicinity of the North & South Sawyer Glaciers. Using the data from these updated surveys NOAA has produced a new chart, number 17311, at 1:40,000 scale covering Tracy Arm, Holkham Bay and a portion of Endicott Arm as well as a 1:20,000 scale inset of the Sawyer Glaciers. This smaller scale chart will be available in the spring of 2000.

b. Smooth Sheets: NOAA has made "smooth sheets" of Tracy Arm and other areas in Alaska available to mariners. Information on obtaining these "smooth sheets" is posted on the Small Passenger Vessel Task Force web page.

c. Identification of Prioritized Areas for Improved Charting: A list of remote areas where small passenger vessels operate and require updated bottom surveys will be developed by the Coast Guard from waterway users input and presented to NOAA the summer of 2000.

d. Customized Charts: Coast Guard Alaska Captain of the Ports will encourage operators of small passenger vessels develop their own chartlets and other navigation job aids to help their crews safely navigate confined waters.

5.2 Situational Awareness:

a. Promulgation of "Lessons Learned": The Coast Guard 17th District has implemented a "Lessons Learned" from marine casualties program to help increase mariners' Situational Awareness of the hazards in operating a vessel in Alaska's waters with the objective of preventing similar accidents in the future. Copies of two "Lessons Learned" are appended to this report. The Small Passenger Vessel web site, notice to mariners and newsletters will all be used to communicate "Lessons Learned" to the marine industry.

b. Area Familiarization: Coast Guard Alaska Captain of the Ports will encourage operators of small passenger vessels to provide familiarization rides to their crewmembers who have limited or no prior experience with navigating in their vessels' operating areas to help improve their Situational Awareness.

c. Well Rested Crews: Operators should ensure their crews' work schedule minimizes fatigue and they are well rested and alert.

5.3 Standards of Care:

a. "Standard of Care" for Tracy Arm: The Southeast Alaska Waterways User Guide will be updated for the 2000 operating season and distributed to mariners to communicate Standards of Care and good marine practices while operating in Southeast Alaska waters. Adherence to these Standards of Care should improve maritime safety.

b. Bridge Resource Management Practices: The Alaska Captain of the Ports will encourage small passenger vessel operators to adopt Bridge Resource Management practices as a Standard of Care when operating in confined waters or in restricted visibility. Additionally, operators should restrict passengers from the pilot house when operating during these periods to minimize distractions.

b. Promulgation of Standards of Care: The Alaska Captain of the Ports will work with the small passenger vessel community in the development and distribution of Standards of Care outlining practices that, when followed, should help elevate the safety of passenger vessel operations in Alaska.

5.4 Mariner Qualifications:

a. Pilotage: The Coast Guard will check for compliance with the applicable pilotage requirements to ensure mariners have the proper qualifications for operating in Alaska waters.

b. Training of Crews: Small passenger vessel operators should ensure their crews are trained in the proper operation of their vessels' navigation and safety equipment.

5.5 Communications:

a. Emergency Communications: The Coast Guard will inform operators of small passenger vessels of communication "black holes" in Alaska and will encourage vessels to carry self contained back-up VHF radios and satellite phones. Additionally the Coast Guard will promote the carriage of GPS EPIRBs that transmit the vessel's position along with identifying information, to expedite locating vessels in distress.

b. Coast Guard VHF Coverage: The Coast Guard will explore installing seasonal VHF relay stations in the Tracy Arm area to provide better communications during summer months commencing the 2000 operating season. The Coast Guard will also pursue eliminating other "black holes" in active maritime areas of Alaska.

5.6 Lifesaving Equipment:

a. Carriage of Inflatable Buoyant Apparatus (IBAs) or Liferafts: Due to the increased risk of operating vessels in Alaska's cold water environment, lifefloats, where carried, should be replaced with liferafts or inflatable buoyant apparatus to protect passengers and crew from hypothermia in the event of an accident that leads to abandon ship. The Seventeenth Coast Guard District Commander has directed all Alaska Officers in Charge of Marine Inspection (OCMIs) to review the adequacy of lifesaving equipment presently carried on passenger vessels and as appropriate, require vessels to be equipped with liferafts and or inflatable buoyant apparatus (IBAs) with capacity for all persons on board. These upgraded lifesaving requirements will go into effect during the 2001 operating season.

6.0 Conclusions:

Implementation of the above areas of emphasis and associated action plans developed by the Alaska Small Passenger Vessel Task Force should reduce the number of maritime accidents involving small passenger vessels in Alaska and minimize the consequences of casualties. It is now the responsibility of the small passenger vessel community, the Coast Guard, and NOAA to implement the action plan developed by the Task Force as well as to continue to seek ways to prevent accidents and improve response to prevent loss of life and environmental damage.

The Coast Guard is committed to closely monitoring the safety of small passenger vessel operations and will take additional actions as needed to ensure safe and environmentally sound maritime operations in Alaska.

Edward E Page
Captain, U.S. Coast Guard
Chairman
Alaska Small Passenger Task Force

Appendix: (A) Alaska Small Passenger Vessel Task Force Charter
(B) Lessons Learned 01-99
(C) Lessons Learned 02-99

ALASKA
SMALL PASSENGER VESSEL
TASK FORCE CHARTER

Purpose. The Alaska Small Passenger Vessel Task Force has been established to examine small passenger vessel operations and identify operational and safety measures that should reduce the risk of accidents and minimize the consequences. The Task Force will focus on smaller passenger vessels in the 50 to 200-foot range that carry about 100 passengers through remote areas of Alaska.

Recent Marine Casualties.

- 12 June P/V WILDERNESS ADVENTURER in Dundas Bay
- 19 July P/V WILDERNESS EXPLORER in Idaho Inlet
- 27 July P/V SPIRIT OF 98 in Tracy Arm

Discussion. These recent marine casualties were groundings, one, which resulted in uncontrolled flooding and the evacuation of 94 passengers. The targeted vessels typically sail in more confined, unmarked and hazardous waters than the larger cruise ships and at times are in areas where communications with the Coast Guard and other vessels are very limited or nonexistent. To compound these problems, the potential for rapid and severe weather changes in Alaska increases the risk of loss of life and environmental impact.

Deliverable. The Task Force will conduct a risk assessment of these passenger vessel operations in Alaska with an emphasis on identifying non-regulatory solutions to advance marine safety. The Task Force will report their preliminary findings and recommendations that can be implemented during the 99 operating season, if any, by 24 Aug 99. A final, more comprehensive report will be issued in winter 99 and outline recommendations to be implemented in the 00 passenger vessel season. Efforts will be made to first address ways to prevent marine casualties, and second to ensure that proper response mechanisms are in place to mitigate future incidents. The results of this Task Force may impact other segments of the passenger vessel industry, these findings will, at a minimum, be documented as recommendations in the final report.

Timetable.

Identification of team members	2 Aug
Collection of data and information.	2-4 Aug
Task Force meeting	5 Aug
Task Force meeting and consultation of key industry players	6 Aug
Draft Interim report	9-24 Aug
Task Force meeting	22-24 Sep
Draft Final Report	Oct-Nov

Methodology. The Chairman shall establish the methodology for achieving the purposes of the Task Force in consultation with the members. Quality principles should be used for all meeting and deliberations.

Resources. The Task Force membership is comprised of:

D17(m)	CAPT Ed Page, Task Force Chairman, Chief, Marine Safety Division
D17(moc)	LCDR John Bingaman, Chief, Prevention and Compliance Branch LCDR Spencer Wood, Merchant Vessel Safety and Licensing LT John Bryant, Waterways Management, Port Safety and Security
D17(mor)	LT Ryan Murphy, Contingency Planning and Preparedness
D17(ppt)	CWO Bill Benning, Communications
Marine Safety Offices	LT Mark McManus, MSO Anchorage LT Gerry Achenbach, MSO Juneau LT Barry Romberg, MSO Valdez TBD, MSO Puget Sound
COMDT	Mr. Joe Myers (G-MSE-1), Risk Assessment and Measurement
D17(osr-3)	Ms. Sue Hargis, Facilitator

Other Federal Agency Members. The following federal agencies have offered to serve as members of the Task Force:

National Park Service - Mr. Rick Perkins
NOAA - LT Doug Baird

State of Alaska Members. The following state agencies have offered to serve as members of the Task Force:

Department of Environmental Conservation - Mr. Bob Mattson
Department of Commerce and Economic Development - Mr. Pete Christensen

Industry Professionals. The Task Force shall obtain the counsel of appropriate industry professionals as determined by the Task Force chairman. The Federal Advisory Committee Act applies.

Authority to Act. The Task Force is authorized to collect information necessary for it to realize the goals of this charter and to use funding provided by the Chief of Staff for necessary travel and administrative costs.

T. J. BARRETT
Rear Admiral, U.S. Coast Guard
Commander, Seventeenth Coast Guard District

7-29-99
Date

Alaska Small Passenger Vessel Safety Alert No. 01-99

Grounding Leading to Evacuation of Passengers and Crew

Background: The Seventeenth Coast Guard District Small Passenger Vessel Safety Alert program was developed to provide timely safety-related information to mariners of "Lessons Learned" from marine casualties. The program is part of an ongoing effort to apply Prevention Through People (PTP) principles to improve maritime safety.

Incident: A 156-foot passenger vessel carrying 56 passengers grounded on a charted rock on high tide while transiting the restricted waters at the head of Dundas Bay. The vessel had traveled deep into the bay to provide passengers the opportunity to photograph Alaska wildlife. As the tide fell the vessel incurred a 40 degree list and took on water requiring all 56 passengers and crew of 24 to abandon the vessel to nearby vessels. The vessel remained aground for four days before being refloated by salvage teams. Even though the vessel suffered significant hull damage, there were no injuries.

Lessons Learned: While the cause of the casualty is still under investigation, there are several lessons learned from this incident.

1. Use of Bridge Management Team practices while operating in confined waters in lieu of a single person on watch can help ensure safe navigation and prevent groundings.

2. Due to the limitations of present small scale charts in some areas of Alaska, operators should consider developing "customized charts" that better depict hazards.

3. The availability of 100% liferaft capacity for vessels operating in remote areas and cold waters can be instrumental in saving lives.

4. Crew drills and preparedness for emergencies are instrumental in minimizing the consequences of marine accidents and conducting safe evacuations.

5. The extreme tidal ranges in Alaska can turn relatively minor groundings into serious incidents and require abandonment of vessels.

6. Coast Guard help and assistance from other vessels may not be readily available in the more remote areas of Alaska, making the prevention of accidents and the carriage of suitable safety and reliable communications equipment more important than in other areas of the U.S.. Standard VHF communications were limited in the area of this grounding. Satellite communications were heavily relied on.

Alaska Small Passenger Vessel Safety Alert No. 02-99

Grounding and Taking on Water in Tracy Arm Leading to Evacuation of Passengers and Crew

Background: The Seventeenth Coast Guard District Small Passenger Vessel Safety Alert program was developed to provide timely safety-related information to mariners of "Lessons Learned" from marine casualties. The program is part of an ongoing effort to apply Prevention Through People (PTP) principles to improve maritime safety.

Incident: A 198-foot passenger vessel carrying 126 passengers struck bottom in the entrance to South Sawyer Glacier area of Tracy Arm on a charted shoal while inbound and sustained damage to the keel cooler leading to uncontrolled flooding. The vessel disembarked passengers on small boats to a nearby passenger vessel and proceeded several miles until it located a shoal area where it grounded to prevent sinking. During the transit, both engines failed due to thirteen feet of water accumulating in the engine room, one just prior to the vessel reaching the grounding site. The Coast Guard air lifted de-watering pumps and dispatched three vessels to assist the vessel. The vessel remained aground for four days before being refloated by salvage teams. Even though the vessel suffered significant hull damage, there were no injuries.

Lessons Learned: The Coast Guard investigation identified several lessons learned from this incident.

1. Use of Bridge Management Team practices while operating in confined waters in lieu of a single person on watch can help ensure safe navigation and prevent groundings.
2. Due to the limitations of present large scale charts in some areas of Alaska, and in some cases outdated surveys and soundings, operators should consider developing "customized charts"that better depict hazards through applying local knowledge.
3. Crew drills and preparedness for emergencies are instrumental in minimizing the consequences of marine accidents and conducting safe evacuations.
4. The intentional grounding of a vessel that is taking on water can be effective in preventing sinking.
5. Coast Guard help and assistance from other vessels may not be readily available in the more remote areas of Alaska, making the prevention of accidents and the carriage of suitable safety and reliable communications equipment more important than in other areas of the U.S.. VHF communications with the Coast Guard was not existent in the area of this grounding due to the steep mountains and cliffs. The 406 EPIRB position was over a thousand miles off due to the signal being reflected off nearby cliffs than directly to the receiving satellite. GPIRBS (EPIRBS that provide a GPS position) would be more effective in this and similar areas of Alaska. Notification was made to the home office of the accident via satellite comms and they in turn relayed information to the Coast Guard via phone.